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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 17

Application Number: 09/216,457
Filing Date: December 18, 1998
Appellant(s): CONNELLY, JAY H.

Julie Stein
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 16, 2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims groupings do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4,275,266	LASAR	06-1981
6,052,666	DIEHL ET AL	04-2000
6,134,527	MEUNIER ET AL	10-2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 3-4, 8-11, 13, 15-16, 21-23, 25-29, and 31-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meunier et al (US Patent No. 6,134,527), hereinafter referred to as Meunier, in view of Diehl et al (US Patent No. 6,052,666), hereinafter referred to as Diehl.

Meunier teaches a method of testing a vocabulary word being enrolled for acoustic similarity with existing vocabulary words in a speech recognition system.

Regarding claim 21, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "identifying devices, and device having at least one candidate audio command associated with it."

Additionally, Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56;

Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value.

Meunier does not specifically teach that the system controls two speech-enabled applications. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 22, Meunier and Diehl teach everything as claimed in claim 21. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing a new execution command in association with any stored candidate audio commands", since adding the new words to the recognition vocabulary to allow for recognition necessarily implies commands or functionality associated with the new word is to be performed upon recognition of the accepted vocabulary word.

Regarding claim 23, Meunier and Diehl teach everything as claimed in claim 21. Additionally, at col. 3, lines 6-18. Meunier teaches the audio commands or vocabulary words are speech.

Regarding claim 25, Meunier and Diehl teach everything as claimed in claim 21. Additionally, at col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "comparing and adding occur automatically, without user intervention."

Regarding claim 3, Meunier and Diehl teach everything as claimed in claim 21. Additionally, at col. 4, line 62 continuing to col. 5, line3, Meunier teaches the predetermined value is a function of a predetermined threshold value.

Regarding claim 4, Meunier and Diehl teach everything as claimed in claim 21. Additionally, at col. 6, lines 1-37, Meunier teaches the accuracy value is determined using an acoustical pattern matching procedure, such as hidden Markov models.

Regarding claim 8, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment. Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy

values exceed a predetermined value, which reads on "installing the sound commands for each application unless the accuracy value is less than a predetermined value".

Meunier does not specifically teach that the system controls two speech-enabled applications. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 9, Meunier and Diehl teach everything as claimed in claim 8. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "the speech-enabled apparatus includes a computer."

Regarding claim 10, Meunier and Diehl teaches everything as claimed in claim 8. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular

radiotelephones, and telephony equipment, which reads on "the speech-enabled apparatus is coupled to at least one device using at least one of a serial connection, parallel connection, a dedicated card connection, an internet connection and a wireless connection", since the system is applicable to a plurality of devices that communicate or function via various types of connections and or interfaces.

Regarding claim 11, Meunier and Diehl teaches everything as claimed in claim 10. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "the at least one device includes at least one of a computer, a telephone, a cordless computer access device."

Regarding claim 32, Meunier and Diehl teaches everything as claimed in claim 8. Additionally, at Figures 2 and 4;col. 1, lines 15-61; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier describes the confusion or ambiguity that arises when adding similar commands from a ratiotelephone speech recognition application and how the invention alleviates that particular problem, which reads on "candidate audio commands is one of a plurality of candidate audio commands defined in a table associated with an execution command," since the device which implements a speech recognition application provides some method of storing the standard commands associated with the application.

Regarding claim 33, Meunier and Diehl teach everything as claimed in claim 8. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing a new execution command in association with

any stored candidate audio commands", since adding the new words to the recognition vocabulary to allow for recognition necessarily implies commands or functionality associated with the new word is to be performed upon recognition of the accepted vocabulary word.

Regarding claim 34, Meunier and Diehl teach everything as claimed in claim 8. Additionally, at col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "comparing and adding occur automatically, without user intervention."

Regarding claim 13, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment. Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. At col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "a set of instructions residing in a storage medium, the set of instructions capable of being executed by a processor to implement a development of a speech menu for a speech-enabled application." Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and

col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "if the accuracy values are less than a predetermined value, installing the candidate sound commands in the speech menu".

Meunier does not specifically teach that the system controls two speech-enabled applications. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 15, Meunier and Diehl teach everything as claimed in claim 13. Additionally, at col. 4, line 62 continuing to col. 5, line3, Meunier teaches the predetermined value is a function of a predetermined threshold value.

Regarding claim 16, Meunier and Diehl teach everything as claimed in claim 13. Additionally, at col. 6, lines 1-37, Meunier teaches the accuracy value is determined using an acoustical pattern matching procedure, such as hidden Markov models.

Regarding claim 26, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "a method of building a speech menu." Additionally, Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56;

Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value.

Meunier does not specifically teach that the system controls two speech-enabled applications. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 27, Meunier and Diehl teach everything as claimed in claim 26. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing an execution command in association with the candidate audio command", since adding the new words to the recognition vocabulary to allow for recognition necessarily implies commands or functionality associated with the new word is to be performed upon recognition of the accepted vocabulary word.

Regarding claim 28, Meunier and Diehl teaches everything as claimed in claim 26. Additionally, at Figures 2 and 4;col. 1, lines 15-61; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier describes the confusion or ambiguity that arises when adding similar commands from a ratiotelephone speech recognition application and how the invention alleviates that particular problem, which reads on "candidate audio commands is one of a plurality of candidate audio commands defined in a table associated with an execution command," since the device which implements a speech recognition application provides some method of storing the standard commands associated with the application.

Regarding claim 29, Meunier and Diehl teach everything as claimed in claim 26. Additionally, at col. 3, lines 6-18. Meunier teaches the audio commands or vocabulary words are speech.

Regarding claim 31, Meunier and Diehl teach everything as claimed in claim 26. Additionally, at col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "comparing and adding occur automatically, without user intervention."

Regarding claim 35, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "a computer data signal embodied in a carrier wave to develop a speech menu for a speech-enabled application." Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing the sound commands for each application unless the accuracy value is less than a predetermined value".

Meunier does not specifically teach that the system controls two speech-enabled applications. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor; Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 36, Meunier and Diehl teach everything as claimed in claim 35. Additionally, at col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "the comparison source code segment and the installation source code segment, when executed, operate automatically without user intervention."

Regarding claim 37, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages,

electronic organizers, computers, cellular radiotelephones, and telephony equipment. Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. At col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on, which reads on "a method for building a speech menu from pre-existing speech menus." Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value.

Meunier does not specifically teach that the system controls two speech-enabled applications with separate pre-existing speech menus. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 38, Meunier and Diehl teach everything as claimed in claim 37. Additionally, at col. 4, line 62 continuing to col. 5, line3, Meunier teaches the predetermined value is a function of a predetermined threshold value.

Regarding claim 39, Meunier and Diehl teach everything as claimed in claim 37. Additionally, at col. 6, lines 1-37, Meunier teaches the accuracy value is determined using an acoustical pattern matching procedure, such as hidden Markov models.

Regarding claim 40, Meunier and Diehl teach everything as claimed in claim 37. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "an execution command is associated with any audio command in the final speech menu", since adding the new words to the recognition vocabulary to allow for recognition necessarily implies commands or functionality associated with the new word is to be performed upon recognition of the accepted vocabulary word.

Regarding claim 41, Meunier and Diehl teach everything as claimed in claim 37. Additionally, at col. 3, lines 6-18. Meunier teaches the audio commands or vocabulary words are speech.

Regarding claim 42, Meunier and Diehl teach everything as claimed in claim 37. Additionally, at col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word

models and makes the decision whether to enroll or discard a new word, which reads on "determining and combining occur automatically, without user intervention."

Regarding claim 43, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment. Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing the sound commands for each application unless the accuracy value is less than a predetermined value".

Meunier does not specifically teach that the system controls two speech-enabled applications with pre-trained audio commands. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands.

Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 44, Meunier and Diehl teach everything as claimed in claim 43. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "the speech-enabled apparatus includes a computer."

Regarding claim 45, Meunier and Diehl teaches everything as claimed in claim 43. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "the speech-enabled apparatus is coupled to at least one device using at least one of a serial connection, parallel connection, a dedicated card connection, an internet connection and a wireless connection", since the system is applicable to a plurality of devices that communicate or function via various types of connections and or interfaces.

Regarding claim 46, Meunier and Diehl teaches everything as claimed in claim 43. Additionally, at col. 6, lines 62-67, Meunier teaches the method is applicable to any device

employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which reads on "the at least one device includes at least one of a computer, a telephone, a cordless computer access device."

Regarding claim 47, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment. Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. At col. 4, lines 34-47, Meunier teaches the system performs the analysis of the word models and makes the decision whether to enroll or discard a new word, which reads on "a set of instructions residing in a storage medium, the set of instructions capable of being executed by a processor to implement a development of a speech menu." Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "combining the audio commands in a final speech menu wherein the accuracy value for the audio command is greater than or equal to a predetermined value."

Meunier does not specifically teach that the system controls two speech-enabled applications from pre-existing speech menus. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Regarding claim 48, Meunier and Diehl teach everything as claimed in claim 47. Additionally, at col. 4, line 62 continuing to col. 5, line3, Meunier teaches the predetermined value is a function of a predetermined threshold value.

Regarding claim 49, at col. 3 lines 6-18; col. 6, lines 62-67; and in the Abstract, Meunier teaches a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words, the system creates a model for the word being enrolled. Meunier also teaches the method is applicable to any device employing speech recognition, including pages, electronic organizers, computers, cellular radiotelephones, and telephony equipment, which

reads on "a computer data signal embodied in a carrier wave to develop a speech menu." Meunier teaches comparing candidate commands with previously registered audio commands to develop an accuracy value at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate command if associated accuracy values exceed a predetermined value. Additionally, at Figures 2 and 4; col. 4, lines 58-67; col. 5, lines 1-12; and col. 6, lines 38-56, Meunier teaches adding the candidate vocabulary word if associated accuracy values exceed a predetermined value, which reads on "installing the sound commands in a final speech menu if the accuracy value exceeds or meets a predetermined value".

Meunier does not specifically teach that the system controls two speech-enabled applications or pre-existing speech menus. However, implementation of a speech recognition system that controls multiple applications or devices via voice or speech commands was well known in the art.

Specifically, in a similar field of endeavor, Diehl et al teaches controlling multiple device speech enabled applications in a plurality of environments via pre-trained voice commands. Diehl et al describes that previous voice control applications allow for control of only one device, but that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Therefore, it would have been obvious to modify the system of Meunier to allow for voice control of multiple speech enabled applications via one central system, as taught by Diehl, for the purpose of enhancing user friendliness, as suggested by Diehl.

Claims 12, 19, 24, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meunier et al. and Diehl et al in view of Lasar (US Patent No. 4,275,266).

Regarding claims 12, 19, 24, and 30, Meunier and Diehl teach everything as claimed in claims 8, 13, 21 and 26, from which claims 12, 19, 24 and 30 depend, respectively. Meunier does not specifically teach the sound command includes at least one tone. However, implementation of tone recognition for control of a machine or a device was well known in the art.

Specifically, in a similar field of endeavor, Lasar teaches the control of a machine or a device via tones generated by a human user of an instrument. Lasar teaches that the system can be used to create automatic telephone systems for dialing, controls systems for disabled persons and systems, which enable doctors to control life support systems during emergency situations.

Therefore, it would have been obvious to one of ordinary skill at the time of invention to modify the vocabulary testing enrollment system of Meunier to include tones as sound commands as taught by Lasar, for the purpose of ensuring that applications which allow for control of systems via tune commands do not allow tones to be added to the system that are acoustically similar to previously enrolled tones/commands, as taught by Meunier et al.

(11) Response to Argument

Applicant's arguments filed December 16, 2002 have been fully considered but they are not persuasive.

At page 5 of the Brief, Applicant argues that there is no motivation to combine Meunier and Diehl. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Diehl specifically discloses that because most consumers have a plurality of different devices that can be controllable, it would enhance user-friendliness to provide for vocal control of a plurality of devices via one central system (col. 1, lines 14-44).

Applicant further argues that there is no motivation to combine the references because Meunier generally relates to training the system for a speech processing system and Diehl discloses no training at all. The Examiner disagrees, and argues that both Meunier and Diehl provide for training of commands to be recognized because Meunier teaches how to train and within Diehl training is presupposed.

At page 6 of the Brief, Applicant argues that even if one of ordinary skill in the art were to combine Meunier and Diehl, the combination still does not teach or suggest all of the elements

of the claimed invention. Applicant also argues the Meunier and Diehl, even if considered in combination, do not teach or suggest comparison of speech commands from multiple applications. The Examiner disagrees, and argues that Meunier specifically discloses a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words in a speech recognition system (col. 3, lines 3-5), which reads on "comparing at least one candidate sound command to a previously stored sound command in the speech menu". The acoustic similarity is determined by calculating a metric for each model and comparing the metric to a predetermined threshold (col. 4, lines 47 continuing to col. 5, lines 12), which reads on "determine an accuracy value, the distance accuracy module capable of installing the sound commands unless the accuracy value is less than a predetermined value." Meunier discloses that the system can be used on any device employing speech recognition (col. 6, lines 62-67). Diehl (abstract; Figure 2) discloses a speech based man-machine communication system comprising more than one controllable device (and by implication more than one application).

Thus, a combination of Meunier and Diehl would specifically allow for "comparing at least one candidate sound command to a previously stored sound command in the speech menu" (as provided by Meunier), "determine an accuracy value, the distance accuracy module capable of installing the sound commands unless the accuracy value is less than a predetermined value", (as provided by Meunier), for use on any device that employs speech recognition, such that the system would perform the similarity comparisons for enrolling new vocabulary words of more than one controllable device, so as to control more than one device via speech (as provided by Diehl).

At pages 7 and 8 of the Brief, Applicant argues that Meunier does not teach comparison of candidate commands from multiple applications and that Diehl does not teach or suggest the claimed apparatus for developing a speech menu from more than one application. Applicant further argues that neither reference teaches or suggests comparing candidate sound commands from multiple applications or devices to a previously stored sound command and installing the sound commands of each application or device unless an accuracy value determined therefrom is less than a predetermined value.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this instance, Meunier was cited as teaching a method of testing a new vocabulary word being enrolled for acoustic similarity with existing vocabulary words in a speech recognition system (col. 3, lines 3-5), which reads on "comparing at least one candidate sound command to a previously stored sound command in the speech menu". Meunier was also cited for teaching that the acoustic similarity is determined by calculating a metric for each model and comparing the metric to a predetermined threshold (col. 4, lines 47 continuing to col. 5, lines 12), which reads on "determine an accuracy value, the distance accuracy module capable of installing the sound commands unless the accuracy value is less than a predetermined value." Further, Meunier was also cited for teaching that the system can be used on any device employing speech recognition (col. 6, lines 62-67). Additionally, Diehl was cited for teaching discloses a speech based man-machine communication system comprising more than one controllable device (and by

implication more than one application). Further, it would have been obvious to use Meunier's disambiguation on any set of commands, whether for the same application or different applications.

Thus, the combination of Meunier and Diehl teaches the claimed limitations, since the combination would specifically allow for "comparing at least one candidate sound command to a previously stored sound command in the speech menu" (as provided by Meunier), "determine an accuracy value, the distance accuracy module capable of installing the sound commands unless the accuracy value is less than a predetermined value", (as provided by Meunier), for use on any device that employs speech recognition, such that the system would perform the similarity comparisons for enrolling new vocabulary words of more than one controllable device, so as to control more than one device via speech (as provided by Diehl).

At page 9 of the Brief, Applicant argues that Meunier and Diehl, even if considered in combination do not teach or suggest comparison of predetermined speech commands. The Examiner disagrees and argues that predetermined commands are inherent from the controlling of the devices. The devices are controlled via a specific set of commands and these commands are predetermined. Thus, by allowing the user to control multiple devices via commands specifically associated with the devices, as taught by Diehl, and comparing the commands associated with the devices to the commands and vocabulary existing in the system to determine if the device commands are acoustically similar with existing commands or vocabulary, as taught by Meunier, the combination of Meunier and Diehl teach and or suggest comparison of predetermined speech commands.

At pages 9 and 10 of the Brief, Applicant argues dependent claims 12, 19, 24, and 30 are allowable over the addition of Lasar to the obviousness rejection, because Lasar does not disclose any of the missing elements from the independent claims or motivation to combine the references. The Examiner disagrees and argues that the combination of Meunier and Diehl teach everything as claimed in independent claims 8, 13, 21, and 26, from which claims 12, 19, 24, and 30 depend from, as indicated in the rejection and arguments above. Further, applicant admits Lasar "discloses a device that takes musical tones and converts then to digital signals/numbers, which can then be used to control a given device" (page 10 of the Brief). Thus, the combination of Meunier, Diehl and Lasar teach the claimed limitations of claims 12, 19, 24, and 30.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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